

Interview Summary

1. A proposed amendment was submitted for applicant's consideration. Examiner suggested Applicant to amend claims as shown in the Examiner's Amendment below in order to place the application in condition for allowance.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this examiner's amendment was given in a telephone interview with the Applicant's Representative, Gregory R. Lunt (Reg. No. 57,354), on 02 June 2008.

IN THE SPECIFICATION

Please replace the paragraph starting on page 8, line 5 of the specification as below:

The computer 110 typically includes a variety of computer-readable media. Computer-readable media can be any available media that can be accessed by the computer 110 and includes both volatile and nonvolatile media, and removable and non-removable media. By way of example, and not limitation, computer-readable media may comprise computer storage media and communication media. Computer

storage media includes both volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules or other data.

Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical disk storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store the desired information and which can accessed by the computer 110.

Communication media typically embodies computer-readable instructions, data structures, program modules or other data in ~~a modulated data signal such as a carrier wave or other transport mechanism~~ mechanisms and includes any information delivery media. The term "modulated data signal" means a signal that has one or more of its characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media includes wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, RF, infrared and other wireless media. Combinations of the any of the above should also be included within the scope of computer-readable media.

IN THE CLAIMS

Please amend claims 1, 16, and 33, and cancel claim 44 as shown below:

1. (Currently Amended) In a computer network, a method of automatically and transparently handling WebDAV server and file access requests, the method comprising:

maintaining at an I/O manager a predetermined, stored priority order that indicates which of a plurality of redirectors has precedence to handle a WebDAV I/O request, wherein a plurality of suitably configured redirectors respond to the WebDAV I/O request, each redirector being equally capable of redirecting the received WebDAV I/O request;

receiving at the I/O manager a the WebDAV I/O request initiated from an application program, wherein the WebDAV I/O request indicates a path and filename of a remote file accessible via WebDAV;

polling available redirectors to determine which redirectors are configured to handle the application program's WebDAV I/O file request, each redirector suitably configured to handle the WebDAV I/O request including appropriate functionality for receiving and redirecting WebDAV I/O file requests to corresponding WebDAV server computer systems that store the remote files;

receiving responses from a the plurality of suitably configured redirectors, each suitably configured redirector being equally capable of redirecting the received WebDAV I/O file request;

determining from the stored priority order which of the plurality of suitably configured redirectors has precedence to handle the WebDAV I/O file request;

based on the determination, requesting a local file system of the redirector determined to have precedence to create the file in response to the WebDAV I/O file request, downloading the file to a local cache of the redirector's file system, and returning a file handle corresponding to the file in the local cache to the application program;

providing access to the file in the local cache of the file system via the file handle; and

receiving a request to close the file via the file handle, and when received, uploading the file from the local cache of the file system to the WebDAV server;

determining that the redirector determined to have precedence is configured to handle all similar WebDAV I/O requests to a network share; and bypassing any redirector polling for subsequent requests directed to the network share.

16. (Currently Amended) A computer-implemented method of automatically and transparently handling WebDAV server and file access requests, the method comprising:

maintaining at a local application programming interface layer a predetermined, stored priority order that indicates which of a plurality of redirectors has precedence to handle a WebDAV I/O request, wherein a plurality of suitably configured redirectors respond to the WebDAV I/O request, each redirector being equally capable of redirecting the received WebDAV I/O request;

receiving at the local application programming interface layer a WebDAV application I/O request comprising a WebDAV Uniform Resource Identifier (URI) indicating a path and filename of a remote file accessible via WebDAV;

polling available redirectors to determine which redirectors are configured to handle the WebDAV URI, each redirector suitably configured to handle the WebDAV application I/O request including appropriate functionality for receiving and redirecting WebDAV URI requests to corresponding WebDAV server computer systems that store the remote files;

receiving responses from a the plurality of suitably configured redirectors, each suitably configured redirector being equally capable of redirecting the received WebDAV URI request;

determining from the stored priority order which of the plurality of responding redirectors has precedence to handle the WebDAV I/O URI request ; and

if determining that the specified share and file are accessible;
based on the determination, handling the request, including:, based on the determination,

requesting a local file system of the redirector determined to have precedence to create the file in response to the WebDAV I/O URI request;

,

downloading the file to a local cache of the redirector's file system;,
and

returning a file handle corresponding to the file in the local cache to the WebDAV application program;

determining that the redirector determined to have precedence is configured to handle all similar WebDAV I/O requests to a network share; and bypassing any redirector polling for subsequent requests directed to the network share.

33. (Currently Amended) In a computer network, a system including a processor and a memory for automatically and transparently handling WebDAV server and file access requests, the system comprising:

an application program that issues WebDAV-related requests, including at least one request having a WebDAV Uniform Resource Identifier (URI) corresponding to path and filename of a remote file stored on a WebDAV server;

a WebDAV redirector, the WebDAV redirector configured to respond to polls used to determine which redirectors are configured to handle the application's WebDAV-related request, each redirector being suitably configured to handle the WebDAV I/O request including appropriate functionality for receiving and redirecting WebDAV I/O file requests to corresponding WebDAV server computer systems that store the remote files;

an I/O manager configured to perform the following:

~~that maintains~~ maintain a predetermined, stored priority order that indicates which of a plurality of redirectors has precedence to handle a

WebDAV I/O request, wherein a the plurality of suitably configured redirectors respond to the WebDAV I/O request, each redirector being equally capable of redirecting the received WebDAV I/O file request, and that receives responses from a the plurality of suitably configured redirectors, ~~each suitably configured redirector being equally capable of redirecting the received WebDAV I/O file request; and~~

~~determining determine from the stored priority order which of the plurality of suitably configured redirectors has precedence to handle the WebDAV I/O request and indicating that the WebDAV redirector locally handling each request corresponding to the WebDAV server can be handled locally and was determined to have precedence to create the file in response to the WebDAV I/O request, or~~and~~ communicating with the WebDAV server to handle requests that cannot be handled locally;~~

~~determine that the redirector determined to have precedence is configured to handle all similar WebDAV I/O requests to a network share; and~~

~~bypass any redirector polling for subsequent requests directed to the network share.~~

44. (Cancelled).

Allowable Subject Matter

4. Claims 1-18, 21-24, and 26-43 are allowed. The following is an examiner's statement of reasons for allowance: In interpreting the claims, in light of the specification and the authorized Examiner's Amendment on 02 June 2008, the Examiner finds the claimed invention to be patentably distinct from the prior art of record.
5. In regards to statutory subject matter, the Examiner interprets the claim language of "a system including a processor and a memory" of claim 33 to be hardware as recited in the applicant's specification on page 6, lines 13-23 which states, "Examples of well known computing systems, environments, and/or configurations that may be suitable for use with the invention include, but are not limited to, personal computers, server computers, hand-held or laptop devices, tablet devices, multiprocessor systems, microprocessor-based systems, set top boxes, programmable consumer electronics, network PCs, minicomputers, mainframe computers, distributed computing environments that include any of the above systems or devices, and the like."
6. **Serlet et al. (6,842,770)** teaches a system and method by which users via programs on one computer may seamlessly access files remotely stored on other computers that run a well known file access protocol. All programs running on a personal computer may access remote files as easily and in the same manner as accessing files on the personal computer's file system without requiring any changes to the program's method of communicating with the computer's existing file system using http protocol and WebDAV. An operating system extension and an application level network access program are provided. The operating system extension receives file

system requests for remote files from the operating system that were issued according to a well-known application program interface (**Serlet abstract, figure 1, and corresponding text**).

7. **Oehrke et al. (6,735,631)** teaches a network and method of providing near 100% availability of services is provided. According to one feature, redirectors are implemented to direct network traffic to any of two or more application processors providing the same service. The redirectors are provided in data paths at network access points and at data centers with the application processors. The redirectors re-route traffic to other application processors when one processor is unavailable and load balance between available processors. To load balance, the redirectors collect various network management statistics from the processors to determine the most responsive processor for receiving traffic. The various network management statistics are shared among the redirectors for efficient load balancing (**Oehrke, abstract, figure 2, and corresponding text**).

8. However, the prior art of record fail to teach or suggest individually or in combination the claimed limitations, determining that the redirector determined to have precedence is configured to handle all similar WebDAV I/O requests to a network share; and bypassing any redirector polling for subsequent requests directed to the network share, correlating to page 18, lines 5-13 of the applicant's specification which states, "The response will indicate to the MUP 206 that the WebDAV kernel redirector 212 is capable of handling file I/O requests directed to that share, and provide the information

necessary to bypass the polling operation for subsequent requests directed to that share."

9. These limitations, in conjunction with the other limitations in the independent claims 1, 16, and 33 are not specifically disclosed or remotely suggested in the prior art of record. Therefore, claims 1-18, 21-24, and 26-43 are allowed.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571) 272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/R. N. S./

Examiner, Art Unit 2141

6/23/2008

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2144